

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended): A method for optimizing data transmission in a wireless digital communication system including a base station and a plurality of user equipment (UEs), wherein a first subset of the UEs have pending downlink transmissions and a second subset of the UEs do not have pending downlink transmissions, the method comprising:
 - (a) receiving blocks of downlink data at the base station for distribution to the plurality of UEs in the first subset;
 - (b) transmitting from the base station to at least one UE in the first subset having a pending downlink transmission, a request for a to begin downlink channel quality measurement measurements, whereby the base station does not transmit a request to begin downlink channel quality measurements to the UEs in the second subset due to not having pending downlink transmissions;
 - (c) the at least one UE in the first subset measuring and reporting the downlink channel quality to the base station;
 - (d) the at least one UE in the first subset receiving a downlink physical channel allocation signal from the base station;
 - (e) the at least one UE in the first subset setting up transmission parameters based on the downlink physical channel allocation; and
 - (f) the at least one UE in the first subset receiving blocks of the downlink data from the base station in accordance with the downlink physical channel allocation.

2. (currently amended): The method of claim 1 wherein the allocation signal indicates a particular coding rate, modulation type and at least one allocated time slot.

3. (currently amended): The method of claim 1 further including:
(g) prioritizing transmissions to be made from the base station to respective ones of the plurality of UEs in the first subset having pending downlink transmissions.

4. (currently amended): A wireless digital communication system for optimizing data transmission, the system comprising:

(a) a plurality of user equipment (UEs), wherein a first subset of the UEs have pending downlink transmissions and a second subset of the UEs do not have pending downlink transmissions; and

(b) a base station in communication with the UEs, the base station further comprising:

(b1) means for receiving blocks of downlink data for distribution to the plurality of UEs;

(b2) means for transmitting to at least one of the UEs in the first subset having a pending downlink transmission, a request for a to begin downlink channel quality measurement measurements, whereby the base station does not transmit a request to begin downlink channel quality measurements to the UEs in the second subset due to not having pending downlink transmissions;

(b3) means for receiving from the at least one UE in the first subset having a pending downlink transmission, a report of the results of the downlink channel quality measurement measurements;

(b4) means for transmitting to the at least one UE in the first subset having a pending downlink transmission, a downlink physical channel allocation signal; and

(b5) means for transmitting to the at least one UE in the first subset having a pending downlink transmission, blocks of the downlink data from the base station in accordance with the downlink physical channel allocation signal.

5. (currently amended): The system of claim 4 wherein the allocation signal indicates a particular coding rate, modulation type and at least one allocated time slot.

6. (currently amended): The system of claim 4 wherein the base station further includes:

(b6) means for prioritizing transmissions to be made to respective ones of the plurality of UEs in the first subset having pending downlink transmissions.

7. (currently amended): A method for optimizing data transmission in a wireless digital communication system including a base station and a plurality of wireless devices, wherein a first subset of the wireless devices have pending downlink transmissions and a second subset of the wireless devices do not have pending downlink transmissions, the method comprising:

(a) receiving blocks of downlink data at the base station for distribution to a plurality of wireless devices in the first subset;

(b) transmitting from the base station to a wireless device in the first subset having a pending downlink transmission, a request for a to begin downlink channel quality measurement measurements, whereby the base station does not transmit a request to begin downlink channel quality measurements to the wireless devices in

the second subset due to not having pending downlink transmissions;

(c) the wireless device in the first subset having a pending downlink transmission measuring and reporting the downlink channel quality to the base station;

(d) the base station signaling a downlink physical channel allocation to the wireless device in the first subset having a pending downlink transmission;

(e) the wireless device in the first subset having a pending downlink transmission setting up transmission parameters based on the downlink physical channel allocation; and

(f) the wireless device in the first subset having a pending downlink transmission receiving blocks of the downlink data from the base station in accordance with the downlink physical channel allocation.

8. (currently amended): The method of claim 7 wherein the signaled allocation indicates a particular coding rate, modulation type and at least one allocated time slot.

9. (currently amended): The method of claim 7 further including:

(g) prioritizing transmissions to be made from the base station to respective ones of the plurality of wireless devices in the first subset having pending downlink transmissions.

10. (currently amended): A method for optimizing data transmission in a wireless digital communication system including a base station and a plurality of user equipment (UEs), wherein a first subset of the UEs have pending downlink transmissions and a second subset of the UEs do not have pending downlink transmissions, the method comprising:

- (a) receiving blocks of downlink data at the base station for distribution to a plurality of UEs in the first subset;
- (b) sending an allocation signal indicating parameters including a particular coding rate, modulation type and at least one allocated timeslot to ones of the UEs in the first subset having a pending downlink transmission;
- (c) the UEs in the first subset having a pending downlink transmission setting up transmission characteristics based on the indicated parameters; and
- (d) the UEs in the first subset having a pending downlink transmission receiving blocks of the downlink data from the base station in accordance with the parameters.

11. (original): The method of claim 10 wherein the blocks of data are distributed from the base station to the UEs on a prioritized basis.

12. (currently amended): The method of claim 10 further comprising:

- (e) transmitting from the base station to the UEs in the first subset having a pending downlink transmission, a request for a to begin downlink channel quality measurement measurements; and
- (f) the UEs measuring and reporting the downlink channel quality to the base station, wherein the UEs are prioritized based on the downlink channel quality measurements.

13. (currently amended): A wireless digital communication system for optimizing data transmission, the system comprising:

- (a) a base station; and
- (b) a plurality of user equipment (UEs) in communication with the base station, wherein a first subset of the UEs have pending downlink transmissions and a

second subset of the UEs do not have pending downlink transmissions, each UE further comprising:

(b1) means for receiving a request from the base station ~~for a to begin~~ downlink channel quality ~~measurement~~ ~~measurements if the respective UE belongs to the first subset, whereby the base station does not transmit a request to begin downlink channel quality measurements to the UEs in the second subset due to not having pending downlink transmissions;~~

(b2) means for measuring and reporting the ~~results of the~~ downlink channel quality ~~measurement~~ to the base station;

(b3) means for receiving a downlink physical channel allocation signal from the base station;

(b4) means for setting up transmission parameters based on the downlink physical channel allocation signal; and

(b5) means for receiving blocks of the downlink data from the base station in accordance with the set transmission parameters.

14. (currently amended): The system of claim 13 wherein the allocation signal indicates a particular coding rate, modulation type and at least one allocated time slot.